

What is claimed is:

1           1.     An ink fountain assembly for use in duplicating machines, such  
2 as rotary offset lithographic machines, comprising a fountain trough defined by an  
3 elongated blade and an ink fountain roller defining a gap there between, a  
4 proximal edge of said blade being rigidly retained and a distal edge of said blade,  
5 adjacent said roller, engaging a portion of a frame and being initially flexed and  
6 prestressed toward said roller to define said gap, and means to vary the gap and  
7 the ink flow therethrough.

1           2.     An ink fountain assembly according to claim 1 wherein said means to  
2 vary the gap includes a plurality of metering screws which apply additional flexure to  
3 said blade.

1           3.     An ink fountain assembly according to claim 2 wherein a hardened  
2 roller is interposed between each metering screw and said blade.

1           4.     An ink fountain assembly according to claim 3 wherein said hardened  
2 rollers are provided in a slot in said frame and are separated by a spacing strip.

1           5.     An ink fountain assembly according to claim 1 wherein the proximal  
2 edge of said blade is fixed to a mounting bar and means to vary the position of said  
3 mounting bar relative to the frame to thereby vary the initial flex and prestress of  
4 said blade.

1           6.     An ink fountain assembly according to claim 1 wherein said fountain  
2 trough is further defined by ink fountain side plates, said ink fountain roller being  
3 mounted in bearings at its end, a lock-up arm functionally mounted on each bearing,  
4 each lock-up arm being pivotally moveable from a first raised position to a locked  
5 position, said side plates having recessed end portions engaging said bearings and  
6 having projections engaged by each lock-up arm when said arm is in its locked

7 position, a screw threaded through a portion of each lock up arm and engaging each  
8 projection to take up manufacturing and assembly tolerances and precisely set the  
9 blade relative to the fountain roller.

1 7. An ink fountain assembly according to claim 6 wherein said recessed  
2 end portions have flat chordal areas which provide a two point V-shaped contact  
3 with the bearing.

1 8. An ink fountain assembly according to claim 6 wherein said side plates  
2 rest on a cross-bar extending between side plates of a duplicating machine and the  
3 fountain assembly is removably attached to said duplicating machine by said cross  
4 bar and the recessed end portions of said side plates.

1 9. An ink fountain assembly according to claim 1 including clamping  
2 means to clamp a proof sheet across the length of said fountain assembly.

1 10. An ink fountain assembly according to claim 9 wherein said clamping  
2 means comprises a spring biased clamping bar extending laterally within a pocket  
3 in said frame.